

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re the Application of:

Zirwas WOLFGANG

Serial No. 10/568,223

Group Art Unit: 2618

Confirmation No. 6270

Filed: February 14, 2006

Examiner: Amar A Daglawi

For: METHOD FOR OPERATING A RADIO COMMUNICATION SYSTEM, RECEIVER  
STATION AND SENDING STATION FOR A RADIO COMMUNICATION SYSTEM

**ARGUMENTS FOR PRE-APPEAL BRIEF REQUEST FOR REVIEW**

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Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

Applicants submit the following Reasons in support of the Pre-Appeal Brief Request for Review filed herewith.

**REASONS**

The following is evidence of clear error in the rejections of claims 23, 31 and 32.

**Claim 23**

Independent claim 23 recites a method, comprising: receiving a signal in a receiver station via a first transmitting channel from a sending station; **determining a channel parameter of the first transmitting channel using the receiver station**; adjusting a symbol parameter of a first data symbol to be transmitted from the receiver station to the sending station via a second transmitting channel, the adjusting based on a function of a value of the channel parameter of the first transmitting channel; and changing a symbol parameter of a second data symbol to be transmitted from the receiver station to the sending station by a mathematical operation opposite from adjusting of a the symbol parameter of the first data symbol, wherein **the sending station transmits the signal via the first transmitting channel using a first frequency range to the receiver station and the receiver station transmits a second signal**

**via a second transmitting channel using a second frequency range to the sending station.**  
(Emphasis Supplied)

It is respectfully submitted that Hokao and Sugar, taken alone and in combination, do not discuss “the sending station transmits the signal via the first transmitting channel using a first frequency range to the receiver station and the receiver station transmits a second signal via a second transmitting channel using a second frequency range to the sending station.” The Office Action, on page 3, admitted that Hokao does not discuss that the sending station transmits the signal via the first transmitting channel using a first frequency range to the receiver station and the receiver station transmits a second signal via a second transmitting channel using a second frequency range to the sending station, but cited to Figure 1, paragraph [0054] and paragraph [0020] in Sugar as allegedly teaching the above features in combination with Hokao.

Sugar discusses an equal gain composite beamforming technique (CBF) which constrains the power of an output signal according to a plurality of transmit antennas, which thereby reduces the output power requirements for each antenna. By reducing output power requirements, silicon area of the power amplifiers are reduced by N times (N being the number of transmit antennas). In other words, a signal to be transmitted from a first device to a second device is weighted. When the second device receives the signal, it weights and combines the received signals which are received by its antennas.

Claim 23 recites “the sending station transmits the signal via the first transmitting channel using **a first frequency range** to the receiver station and the receiver station transmits a second signal via a second transmitting channel using **a second frequency range** to the sending station.” It is clear that the Office Action has incorrectly interpreted Figure 1 and paragraphs [0054] and [0020] in Sugar. Sugar merely discusses beamforming techniques and says nothing about transmitting a first signal using a first transmitting channel using a first frequency range and transmitting a second signal via a second transmitting channel using a second frequency range. Sugar does not discuss using two different transmitting channels in two different frequency ranges. According to the beamforming techniques of Sugar, frequency ranges are irrelevant and thus a first frequency range and a second frequency range are not discussed. As admitted, Hakao is also silent regarding this feature.

Furthermore, Hakao discusses in column 6, lines 32-33 that a channel parameter is set by a transmitting station or base station when the acknowledge is received, however, according to claim 23, a channel parameter is determined using the receiver station. This is shown in Figure 5 of Hakao as C2, C3, C12 and C13 where the network side issues the channel switching

instruction. Therefore, claim 23 further patentably distinguishes over Hakao and Sugar because Hakao does not discuss “determining a channel parameter of the first transmitting channel **using the receiver station**; adjusting a symbol parameter of a first data symbol to be transmitted from the receiver station to the sending station via a second transmitting channel, the adjusting based on a function of a value of the channel parameter of the first transmitting channel.”

Accordingly, Applicant respectfully submits that the rejection of claim 23 is clearly in error. Even if the Examiner believes that the subject matter recited in claim 23 is taught by Hokao and Sugar, the rejection is in error because in the previous non-final Action, the Examiner failed to adequately articulate the grounds for the Examiner’s belief. MPEP § 702.02(j) states that it is important for an Examiner to properly communicate the basis for a rejection so that the issues can be identified early and the applicant can be given fair opportunity to reply.

In the Examiner’s previous rejection of claim 23 under 35 U.S.C. § 102(e) in the non-final Action, the Examiner copied and pasted the features of claim 23 followed by a list of citations (including entire columns) in Hokao: “abstract, Fig. 4, Fig. 5, col. 3, lines 40-67, col. 4, lines 1-67, col. 5, lines 1-67, col. 6, lines 1-67, col. 7, lines 1-20.” The non-final Office Action failed to indicate which feature related to which cited portion of Hokao and Applicant was required to guess which features allegedly corresponded to cited portions of Hakao. After a request for clarification in the Amendment responsive to the non-final Action, the instant final Action has attempted to clarify its 35 U.S.C. § 103 rejection by copying and pasting features from claim 23 followed with a citation to Hokao. (See final Office Action, page 3). Unfortunately, Applicant was not provided with these rejections in the non-final Action and is now at a disadvantage for responding to the instant final Office Action.

Applicant respectfully submits that Hokao and Sugar do not discuss the above distinctive features and consequently, the claims are in condition for allowance. At the very least, Applicant respectfully requests that the Examiner adequately articulate a rejection in a non-final Action before the Applicant is required to file another paper.

### **Claim 31**

Independent claim 31 recites a receiver station for a radio communication system having a sending station; comprising: a receiving unit receiving a signal from the sending station via a first transmitting channel; a determination unit determining a channel parameter of the first transmitting channel; **an adjustment unit changing a symbol parameter of a first data symbol to be transmitted from said receiver station to the sending station via a second**

**transmitting channel**, the adjustment unit changing the symbol parameter of the first data symbol based on a function of a value of the channel parameter of the first transmitting channel; and a changing unit changing a symbol parameter of a second data symbol to be transmitted from the receiver station to the sending station by a mathematical operation opposite to the changing of the first data symbol, wherein **the sending station transmits the signal via the first transmitting channel using a first frequency range to the receiver station and the receiver station transmits a second signal via the second transmitting channel using a second frequency range to the sending station.** (Emphasis Supplied)

For at least the reasons discussed above, Hokao and Sugar, taken alone and in combination, do not discuss “an adjustment unit changing a symbol parameter of a first data symbol to be transmitted from said receiver station to the sending station via a second transmitting channel” and “the sending station transmits the signal via the first transmitting channel using a first frequency range to the receiver station and the receiver station transmits a second signal via the second transmitting channel using a second frequency range to the sending station” recited in claim 31.

Accordingly, Applicant respectfully submits that the rejection of claim 31 is clearly in error. Even if the Examiner believes that the subject matter recited in claim 31 is taught by Hokao and Sugar, the rejection is in error because the Examiner failed to adequately articulate the grounds for the Examiner’s belief in the non-final Action which is evidenced by the Examiner’s additional information provided in the instant final Action.

Applicant respectfully submits that Hokao and Sugar do not discuss the above distinctive features and consequently, the claims are in condition for allowance. At the very least, Applicant respectfully requests that the Examiner adequately articulate a rejection before the Applicant is required to file another paper.

### **Claim 32**

Independent claim 32 recites a sending station for a radio communication system having at least one receiver station, comprising: a transmission unit sending a signal via a first transmitting channel to the receiver station; **a receiver unit receiving from the receiver station a first data symbol having a first symbol parameter adjusted for communication as a function of a value of a channel parameter of the first transmitting channel** and a second data symbol having a second symbol parameter adjusted for communication according to a mathematical operation opposite to the adjusting of the first symbol parameter; and an ascertainment unit ascertaining the channel parameter based on the first and second data

symbol received from the receiver unit, wherein **the sending station transmits the signal via the first transmitting channel using a first frequency range to the receiver station and the receiver station transmits a second signal via a second transmitting channel using a second frequency range to the sending station.** (Emphasis Supplied)

For at least the reasons discussed above, Hokao and Sugar, taken alone and in combination, do not discuss "a receiver unit receiving from the receiver station a first data symbol having a first symbol parameter adjusted for communication as a function of a value of a channel parameter of the first transmitting channel" and "the sending station transmits the signal via the first transmitting channel using a first frequency range to the receiver station and the receiver station transmits a second signal via a second transmitting channel using a second frequency range to the sending station" recited in claim 32.

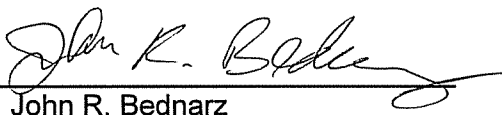
Accordingly, Applicant respectfully submits that the rejection of claim 32 is clearly in error. Even if the Examiner believes that the subject matter recited in claim 32 is taught by Hokao and Sugar, the rejection is in error because the Examiner failed to adequately articulate the grounds for the Examiner's belief in the non-final Action which is evidenced by the Examiner's additional information provided in the instant final Action.

Applicant respectfully submits that Hokao and Sugar do not discuss the above distinctive features and consequently, the claims are in condition for allowance. At the very least, Applicant respectfully requests that the Examiner adequately articulate a rejection before the Applicant is required to file another paper.

Respectfully submitted,

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